Healthcare Associated Infection (HAI) Prevention

(Excerpts from "A Compendium of Strategies to Prevent Healthcare-Associated Infections in Acute Care Hospitals," October 2008)

The Centers for Disease Control and Prevention (CDC) reports that in the United States HAIs account for 1.7 million infections and 99,000 deaths each year. As a result, regulatory agencies are focusing on infection control and prevention. The Joint Commission has included many infection prevention requirements in the National Patient Safety Goals.

California Senate Bill 158 requires that beginning January 2010, all staff receive training in methods to prevent the transmission of HAIs. The following information outlines some of the evidence-based methods for preventing and controlling the spread of HAIs.

Hand Hygiene

Hand Hygiene with an alcohol based hand gel or with soap and water is a must when:
1) entering and before exiting a patient room/treatment area and 2) between patients regardless of whether or not gloves were worn. (Exception: Handwashing with soap and water is necessary when hands are visibly soiled or when caring for a patient with C. difficile). Compliance with hand hygiene compliance is monitored for ALL staff in accordance with The Joint Commission standards. The hand hygiene code word that is used in the facility is **CHAMPS**, which stand for **C**lean **H**ands **A**re **M**aking **P**atients **S**afer. In a just culture, the code word **CHAMPS** means that any staff can utter the word to their fellow staff member, regardless of their role in the facility, to remind them to conduct hand hygiene, especially before and after patient care, without being penalized.

Central Line Associated Bloodstream Infection (CLABSI) Prevention Strategies

- Perform hand hygiene before and after any central line catheter insertion or manipulation
- Avoid using the femoral vein for central venous access in adult patients
- Use maximal sterile barrier precautions during central venous catheter insertion including sterile gloves, surgical mask, hair covering (cap, bonnet), and sterile gown
- Prepare the insertion site using a chlorhexidine based antideptic in patient >2 months old
- Disinfect catheter hub, needleless connectors and injection ports before accessing the central line catheter
- For nontunneled central venous catheters in adults and adolescents, change transparent dressings and perform site care with a chlorhexidine-based antiseptic every 5-7 days or more frequently if the dressing is soiled, loose, or damp
- Document daily in the physician progress notes for the continued need for the central line catheter(s). Remove nonessential catheters as soon as possible
- Do not use antimicrobial prophylaxis for short term or tunneled catheter insertion or while catheters are in place
- Do not routinely replace central venous catheters or arterial catheters
- Do not routinely use positive pressure needleless connectors with mechanical valves before a thorough assessment of risks, benefits, and education regarding proper use

Ventilator Associated Pneumonia (VAP) Strategies

While the patient is receiving mechanical ventilation:

- Maintain patients in a semi-recumbent position unless contraindicated
- Perform regular antiseptic oral care in accordance with product guidelines
- Do not routinely administer intravenous immunoglobulin, white cell stimulating factors (filgrastim or sargramostim) , enteral glutamine, or chest physiotherapy
- Do not routinely use rotational therapy with Kinetic or continuous lateral rotational therapy beds
- Do not routinely administer prophylactic aerosolized or systematic antimicrobials

Catheter Associated Urinary Tract Infection (CA-UTI) Prevention Strategies

- Insert urinary catheters only when necessary for patient care and leave them in place only as long as indications persist
- Consider other methods for management, including condom catheters or in-and-out catheterization, when appropriate
- Practice hand hygiene immediately before insertion of the catheter and before and after any manipulation of the catheter site or apparatus
- Insert catheters by use of aseptic technique
- Maintain a sterile, continuously closed drainage system
- Do not routinely use silver-coated or other antibacterial catheters
- Do not screen for asymptomatic bacteruria in catheterized patients
- Do not treat asymptomatic bacteruria in catheterized patients except before invasive urologic procedures
- Avoid catheter irrigation
- Do not use systemic anitmicrobials routinely as prophylaxis
- Do no change catheters routinely

MRSA/VRE/C. difficile Infection Prevention Strategies

In addition to Standard Precautions, "Transmission Based Precautions" are used for patients known or suspected to be infected by epidemiologically important pathogens spread by Contact (e.g. MRSA, VRE, C. difficile), Droplet (e.g. Influenza), or Airborne (e.g. TB).

- Perform hand hygiene immediately prior to entering the isolated patient's room/treatment area (use soap and water [not alcohol based hand gel] for C. difficile)
- Don appropriate personal protective equipment (PPE) as instructed on the isolation sign. **ALL staff are required to use the appropriate PPE at all times when entering an isolation room even if they don't touch anything in the room.**
    - The following are the minimum PPEs required when entering an isolation room:
        - Contact Precautions: Gown and Gloves
        - Droplet Precautions: Gown and Gloves and Mask
        - Airborne Precautions: N-95 Respirator
- Remove PPEs and perform hand hygiene immediately before exiting the isolation room (use soap and water [not alcohol based hand gel] for C. difficile)
- Use disinfecting cloths/wipes to clean off any equipment that has been used in the patient's isolation room before removing it from the isolation room (e.g. stethoscopes)
- Do not screen patients without signs or symptoms of C. difficile
- Do not repeat C. difficile testing at the end of therapy for C. difficile infection
- Notify patients/decision maker of resistant organism cluture/screen positive results (e.g. MRSA, VRE) and document the patient notification in the patient's medical record. This is required for MRSA by the California Senate Bill 1058 and the California Department of Public Health